



UNITED STATES PATENT AND TRADEMARK OFFICE

fw

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,506	02/22/2002	David G. McLeod	1062-013	9970
7590	02/12/2004		EXAMINER	
Scott A. Chapple Dobrusin & Thennisch PC Suite 311 401 South Old Woodward Avenue Birmingham, MI 48009			OMGBA, ESSAMA	
			ART UNIT	PAPER NUMBER
			3726	9
DATE MAILED: 02/12/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/081,506	MCLEOD ET AL.
	Examiner	Art Unit
	Essama Omgbala	3726

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 13 November 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-21 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-21 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hill et al. (US Patent 6,493,920) in view of Miyazaki et al. (US Patent 4,883,310).

With regards to claims 1 and 5, Hill et al. discloses a method of assembling a roof module 14 to an automotive vehicle, the method comprising providing the roof module 14 wherein the roof module includes a roof portion 60 having at least one edge, a transparent panel 62 having a bottom edge adapted for attachment to a body of the automotive vehicle during assembly of the automotive vehicle, and a top edge that is secured to the roof portion adjacent the at least one edge of the roof portion wherein the transparent panel is a windshield, and assembling the roof module to a body portion of the automotive vehicle, see column 2, lines 43-62. Hill et al. does not disclose the top edge of the windshield being adhesively secured to the roof portion adjacent the forward edge of the roof portion. However it is known to adhesively secure a windshield to an edge of a roof portion as attested by Miyazaki et al., see column 4, lines 45-48. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have adhesively secured the top edge of the windshield to the

Art Unit: 3726

roof portion in the method of Hill et al., in light of the teachings of Miyazaki et al., in order to impart additional structural integrity to the automobile body.

For claim 2, Official Notice is taken in that it is known to provide roof panels with integral foam-in-place headliners.

For claim 3, see column 2, line 18 of Hill et al. and column 4, lines 45-48 of Miyazaki et al.

For claim 4, see column 2, lines 58-62 of Hill et al.

For claim 6, Official Notice is taken in that it is conventional to provide an automotive windshield with an encapsulation covering such as a sealing gasket.

3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hill et al./Miyazaki et al. as applied to claim1 above, and further in view of Meritor Automotive (February 2000).

Hill et al./Miyazaki et al. discloses a method of assembling a roof module to an automotive vehicle as shown above except for the roof portion including at least one vehicle impact counter measure. However Meritor Automotive teaches head area air bags as integrated components of a roof module, see page titled "Integrated components". Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have provided the roof portion of Hill et al./Miyazaki et al. with head area air bags, in light of the teachings of Meritor Automotive, for increased protection of the vehicle's occupants.

4. Claims 8-11, 13, 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hill et al. in view of Miyazaki et al. and Hsieh (US Patent 5,115,086).

With regards to claims 8, 9, 13 and 16, Hill et al. discloses a method of assembling a roof module 14 to an automotive vehicle, the method comprising providing the roof module 14 wherein the roof module includes a roof portion 60 having a forward edge, a rearward edge, a pair of side edges and a pair of A-pillars 52 extending adjacent opposing corners of the roof portion, and a windshield 62 having a top edge, a bottom edge and a pair of side edges wherein the top edge of the wind shield is secured to the roof portion adjacent the forward edge of the roof portion and the side edges of the windshield are secured to the A-pillars, the bottom edge is configured for attachment to a body portion of the automotive vehicle upon assembly of the roof module to the automotive vehicle, and the A-pillars and the body portion of the vehicle include corresponding mating structures (56, 40) for assisting in assembling the roof module to the body portion of the vehicle, and assembling the roof module to the body portion of the vehicle by matingly fitting the mating structures of the A-pillars and the mating structures of the body portion and by adhesively securing the windshield to the body portion of the vehicle, see column 2, lines 18-27 and 43-67, column 3, lines 1-7 and figure 2. Hill et al. does not disclose the top edge of the windshield being adhesively secured to the roof portion adjacent the forward edge of the roof portion. However it is known to adhesively secure a windshield to and edge of a roof portion as attested by Miyazaki et al., see column 4, lines 45-48. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have adhesively secured the top edge of the windshield to the roof portion in the method of Hill et al., in light of the teachings of Miyazaki et al., as is conventional in the art. Although Hill et

al./Miyazaki et al. does not disclose the adhesive as being a urethane adhesive, however it is known to use a urethane adhesive in bonding a windshield to an auto body as attested by Hsieh, see column 1, lines 13-19. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have used a urethane adhesive in the method of Hill et al./Miyazaki et al., in view of the teachings of Hsieh, in order to impart additional structural integrity to the auto body.

For claim 10, see column 1, lines 21-25 of Hsieh.

For claim 11, see column 2, line 18 of Hill et al. and column 4, lines 45-48 of Miyazaki et al. Applicant should note that it is known to provide structural foam in roof rail assemblies.

For claim 14, Official Notice is taken in that it is conventional to provide an automotive windshield with an encapsulation covering such as a sealing gasket.

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hill et al./Miyazaki et al./Hsieh as applied to claim 9 above, and further in view of Bergholz et al. (US Patent 6,151,539).

Hill et al./Miyazaki et al./Hsieh discloses a method of assembling a roof module to an automotive vehicle as shown above except for the roof portion including at least a portion of a global positioning system. However Bergholz et al. teaches a global positioning system mounted on the roof of a vehicle, see column 6, lines 34-36. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have included a global positioning system in the roof of Hill et

Art Unit: 3726

al./Miyazaki et al./Hsieh, in light of the teachings of Bergholz et al., in order to achieve high precision finding while driving the vehicle.

6. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hill et al./Miyazaki et al./Hsieh as applied to claim 9 above, and further in view of Meritor Automotive (February 2000).

Hill et al./Miyazaki et al./Hsieh discloses a method of assembling a roof module to an automotive vehicle as shown above except for the roof portion including at least one vehicle impact counter measure. However Meritor Automotive teaches head area air bags as integrated components of a roof module, see page titled "Integrated components". Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have provided the roof portion of Hill et al./Miyazaki et al./Hsieh with head area air bags, in light of the teachings of Meritor Automotive, for increased protection of the vehicle's occupants.

7. Claims 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hill et al. in view of Miyazaki et al., Hsieh and Bhat et al. (US Patent 6,133,398).

With regards to claims 17, 18 and 20, Hill et al. discloses a method of assembling a roof module 14 to an automotive vehicle, the method comprising providing the roof module 14 wherein the roof module includes a roof portion 60 having a forward edge, a rearward edge, a pair of side edges and a pair of A-pillars 52 extending adjacent opposing corners of the roof portion, and a windshield 62 having a top edge, a bottom edge and a pair of side edges wherein the top edge of the wind shield is secured to the roof portion adjacent the forward edge of the roof portion and the side edges of the

Art Unit: 3726

windshield are secured to the A-pillars, the bottom edge is configured for attachment to a body portion of the automotive vehicle upon assembly of the roof module to the automotive vehicle, and the A-pillars and the body portion of the vehicle include corresponding mating structures (56, 40) for assisting in assembling the roof module to the body portion of the vehicle, and assembling the roof module to the body portion of the vehicle by matingly fitting the mating structures of the A-pillars and the mating structures of the body portion and by adhesively securing the windshield to the body portion of the vehicle, see column 2, lines 18-27 and 43-67, column 3, lines 1-7 and figure 2. Hill et al. does not disclose the top edge of the windshield being adhesively secured to the roof portion adjacent the forward edge of the roof portion. However it is known to adhesively secure a windshield to an edge of a roof portion as attested by Miyazaki et al., see column 4, lines 45-48. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have adhesively secured the top edge of the windshield to the roof portion in the method of Hill et al., in light of the teachings of Miyazaki et al., as is conventional in the art. Although Hill et al./Miyazaki et al. does not disclose the adhesive as being a urethane adhesive, however it is known to use a urethane adhesive in bonding a windshield to an auto body as attested by Hsieh, see column 1, lines 13-19. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have used a urethane adhesive in the method of Hill et al./Miyazaki et al., in view of the teachings of Hsieh, in order to impart additional structural integrity to the auto body. Furthermore it is known to use adhesives having an elongation that is greater than about 300 percent in

Art Unit: 3726

bonding an automobile windshield to the windshield frame as attested by Bhat et al., see column 1, lines 14-21, column 14, lines 62-67 and column 15, lines 1-10. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have used an adhesive having an elongation that is greater than about 300 percent in the method of Hill et al./Miyazaki et al./Hsieh, in light of the teachings of Bhat et al., in order to shorten production time.

For claim 19, see figure 2 of Hill et al. Applicant should note that the provision of additional pillars would depend on the type of vehicle body being assembled and such provision is well within the general knowledge of one of ordinary skill in the art. Applicant should also note that it is conventional to provide an automotive windshield with an encapsulation covering such as a sealing gasket.

For claim 21, Official Notice is taken in that it is known to assemble a roof module in one area and assemble it to a body portion of an automotive vehicle in another area.

Response to Arguments

8. Applicant's arguments filed on November 13, 2003 have been fully considered but they are not persuasive.

In response to Applicant's argument that the examiner provides no specific teaching or motivation for "providing a roof module wherein the roof module includes ... a transparent panel ... having top edge that is adhesively secured to the roof portion", the examiner respectfully disagrees. As outlined in the above rejections, specific teachings of adhesives used to secure automotive windshields to the roof portion are

Art Unit: 3726

disclosed in the sections cited by the examiner, see for example Miyazaki et al., column 4, lines 45-48, Hsieh, column 1, lines 13-19, Bhat et al., column 1, lines 14-21, column 14, lines 62-67 and column 15, lines 1-10. The motivation to use adhesive such as urethane adhesive is also found in the above references, the benefits being among others added structural strength and sealing capability. The use of urethane adhesive to secure windshields to roof panels is conventional as attested by the many prior arts made of record in the instant application. It is not clear whether Applicant consider this to be a novelty.

In response to Applicant's arguments against the references individually (i.e. Hill et al. allegedly not disclosing "adhesively securing the windshield to the body portion of the vehicle..."), one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In view of the above remarks, the examiner maintains that a *prima facie* case of obviousness has been established in the instant application.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Essama Omgba whose telephone number is (703) 305-2915. The examiner can normally be reached on M-F (10-7:30) First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (703) 308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3726

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

eo *EO*
February 7, 2004

A handwritten signature in black ink, appearing to read "Jennifer".